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(54) Title: COMBINED CMP AND WAFER CLEANING APPARATUS AND ASSOCIATED METHODS

(57) Abstract

An integral machine for polishing, cleaning, rinsing and drying workpieces such as semiconductor wafers. A load/unload station has a plurality of platforms for receiving cassettes of wafers to be processed. A dry end–effector of a robot retrieves wafers from the cassettes and transfers them to an index table. A transfer apparatus having wafer carrier elements picks up wafers from the index table, moves the wafers to a polishing table for polishing, and returns the wafers to the index table for further processing. A flipper moves the polished wafers to a cleaning station. The cleaning station includes scrub stations, a rinsing station and a spin dryer station, and a connective system of water tracks. A wet end–effector of the robot transfers rinsed wafers to the spin dryer station. The dry end–effector of the robot moves dried wafers from the spin dryer station back to the cassette of origination.

